



UNDERGRADUATE PROGRAMME SPECIFICATION

Programme Title: HNC/Foundation degree/BSc (Hons) in Applied Technologies

Awarding Body: Staffordshire University

Teaching Institutions:

BSc/BSc (Hons) top-up
Faculty of Computing,
Engineering and Technology
Staffordshire University

HNC/Foundation Degree
Barnsley College
Burton upon Trent College
Leek College
Riverside College Halton
Shrewsbury College
Stoke on Trent College
Tamworth and Lichfield College
West Cheshire College
Newcastle-under-Lyme College

Final Awards: Foundation Degree/BSc (Hons) in
Mechanical Technology
Electrical and Electronic Technology
Manufacturing Technology

Intermediate Awards: BSc

Mode of Study Part time

UCAS Codes: N/A

QAA Subject Benchmarks: Engineering

Professional/Statutory Body: None

Date of Production: April 2011

Date of Revision: April 2012

EDUCATIONAL AIMS OF THE PROGRAMME

The aim of the programme is to provide an opportunity for *part-time students* in regional and other colleges to access higher education at a local level.

The **HNC/Foundation degree** element of the programme, taught in the colleges, can be delivered in either *2 year or 3 year* formats. Both versions comprise six teaching blocks.

The **3 year** version uses the standard University model i.e.2 teaching blocks per year. In this case the HNC can be completed inside two years and a third year will give the Foundation Degree qualification.

The **2 year** version is delivered using a 3rd teaching block over the summer in each year.

In both formats, however, there may be an opportunity to obtain some accreditation for prior learning and work experience, in which case the students could complete the course in less time.

The **BSc Honours top-up degree** element, taught at Staffordshire University, is a further two years of part time study or one year of full time study.

The students will initially enrol on the Foundation Degree/BSc (Hons) programme. The HNC is intended as a fallback award for Foundation degree students, as is the BSc for BSc (Hons) students.

1. Higher National Certificate

Award features

- Student undertake practical exercises using industry standard equipment
- Work-based learning forms part of the assessment process.
- Students study the underlying principles of science, engineering and design.
- Students have the opportunity to engage in Personal Development Planning (PDP).

Programme aims:

- To provide national qualifications, with detailed common standards recognisable to centres, students and employers.
- To provide a focus on practical knowledge and skills.
- To provide compatibility with feeder qualifications.
- To provide a response to changing training and educational needs.

More specifically individual HNC awards with the the programme are designed to meet one or more of the following aims:

Mechanical Technology

- To provide preparation for a range of technical and management careers in mechanical technology.
- To provide specialised studies e.g. design, mechanics, materials and thermo-fluids, which are directly relevant to individual vocations and professions in which students are currently working or in which they intend to seek employment.
- To provide training to enable graduates to progress in industry confident in their use of design and analysis techniques for mechanical technology systems.
- To enable students to make an immediate contribution in employment.

Electrical and Electronic Technology

- To provide preparation for a range of technical and management careers in electrical and electronic technology.
- To provide specialised studies e.g. design, electronics and signal processing, electrical machines and electrical power, which are directly relevant to individual vocations and professions in which students are currently working or in which they intend to seek employment.
- To provide training to enable graduates to progress in industry confident in their use of design and analysis techniques for electrical and electronic technology systems.
- To enable students to make an immediate contribution in employment.

Manufacturing Technology

- To provide preparation for a range of technical and management careers in manufacturing technology.
- To provide specialised studies e.g. design, introduction to manufacturing processes, quality management and control, which are directly relevant to individual vocations and professions in which students are currently working or in which they intend to seek employment.
- To provide training to enable graduates to progress in industry confident in their use of design and analysis techniques for manufacturing technology systems.
- To enable students to make an immediate contribution in employment.

HNC graduates will:

- Be equipped to perform complex technical duties with a substantial degree of personal responsibility.
- Understand the fundamentals and practical applications of current technology whilst applying leading edge technology to practical skills.

2. Foundation Degree

Award features

- The programme encompasses engineering and design principles.
- Enables students to become independent learners.
- Provides for personal development plans.
- Programme of study places emphasis on work-based learning.
- A mentor from within the company will assist with the learning process.
- Work-based learning will form part of the assessment process.

Programme aims

Technical Development

The Foundation Degree is designed:

- To provide the opportunity for educational experiences that assist career development and prepare students to participate in project teams, and to enable them to think critically about how the team can work on technological innovation.
- To develop skills which have usefulness in any working environment in a technological setting.
- To help students respond positively to change and take up opportunities thus created.
- To provide the opportunity for students to progress to a BSc honours degree at Staffordshire University.

Personal Development

- To develop the communication skills necessary to take full advantage of the course and to optimise career potential.
- To appreciate the benefits of time management.
- To organise and be responsible for the work of others, the importance of team membership.
- To develop student initiative and self-motivation and thus increase confidence and self-reliance.
- To offer students opportunities to develop employability and other transferable skills to support career development and continuing education.
- To provide preparation for a range of technical and management careers.
- To have the opportunity to engage in Personal Development Planning (PDP).

Specific Aims

More specifically individual Foundation Degree awards with the the programme are designed to meet the following aims:

Mechanical Technology

- To provide a vocationally based education, which acts as a foundation for a range of experiences in the field of mechanical engineering and technology.
- To develop a sound theoretical and practical mechanical engineering and technology knowledge, in areas such as advanced mechanics, product creation and control technology, to work effectively within the limitations and scope of safe practice.
- To give participants an accessible and supportive learning environment in which they can develop their intellectual abilities and acquire the skills, knowledge and understanding they need to achieve senior technician or team leader level within the area of mechanical engineering and technology.

Electrical and Electronic Technology

- To provide a vocationally based education, which acts as a foundation for a range of experiences in the field of electrical and electronic engineering and technology.
- To develop a sound theoretical and practical of electrical and electronic engineering knowledge, in areas such as advanced electronics design, communications technology and control technology, to work effectively within the limitations and scope of safe practice.
- To give participants an accessible and supportive learning environment in which they can develop their intellectual abilities and acquire the skills, knowledge and understanding they need to achieve senior technician or team leader level within the area of electrical engineering and technology.

Manufacturing Technology

- To provide a vocationally based education, which acts as a foundation for a range of experiences in the field of manufacturing technology.
- To develop a sound theoretical and practical manufacturing technology knowledge, in areas such as product creation technology, manufacturing systems and control technology, to work effectively within the limitations and scope of safe practice
- To give participants an accessible and supportive learning environment in which they can develop their intellectual abilities and acquire the skills, knowledge and understanding they need to achieve senior technician or team leader level within the manufacturing sector.

Foundation Degree graduates will:

- Take personal responsibility for complex technical duties.
- Supervise and organize projects in the workplace.
- Apply leading edge technology and methods.

3. **BSc/BSc(Hons) top-up**

Award Features

- The degree emphasizes engineering and design principles.
- The degree enables students to become independent learners.
- The degree provides for personal development plans and continuous professional development.
- There is an opportunity for a major company based project.

Programme aims

Technical Development

The BSc(Hons) award aims to provide the student with:

- An understanding of technology principles
- A range of transferable skills including team working and communication skills.
- Ability to use mathematical and computer models.
- The ability to undertake design and practical works.
- The ability to solve technology problems.
- An understanding of the management of technology and change.
- A commitment to lifelong learning and suitability for postgraduate study.

Personal Development

- To use a range of transferable skills including team working and communication skills.
- To give an understanding of the management of technology and change.
- To give an appreciation of lifelong learning and suitability for postgraduate study.
- To engage in continuous professional development.
- To have the opportunity to engage in Personal Development Planning (PDP).

BSc Honours Degree graduates will:

- Take personal responsibility for complex technical duties.
- Initiate developments and projects in the workplace.
- Apply leading edge technology and methods.
- Develop a commitment to lifelong learning.

What is distinctive about this programme?

- A programme of study that emphasises work-based-learning, in recognition that learning, practical skills and knowledge accumulation does not just take place in the classroom of educational institutions. The programme aims to incorporate and accredit this learning acquired at work.
- Extensive use of tutorials, workshops and formal lectures that help the student reflect on their experiences and learning in the workplace in an active and vocationally relevant way.
- Work-based learning forms part of the assessment in many of the modules by virtue of the production of standard documents such as project plans, project evaluations etc. undertaken as part of the student's normal work activities.
- The Foundation Degree programme has been designed with the assistance of many employer organisations and their representatives. They have provided valuable information and advice to ensure that the degree programme incorporates all the latest requirements for students who are seeking to complement their work-based learning experiences with a valuable qualification in its own right. Employers are aware that a Foundation Degree is a qualification that provides an opportunity for their employees to progress to an honours degree and postgraduate study if they wish.
- Each student will have a Mentor from within their company to assist with their learning process. The mentor's role is a dual one. Firstly, they will encourage the student to reach their potential in the work-based learning elements of the course. Secondly, they will liaise with other appropriate managers and colleagues to release the resources that the student may need from their organisation wherever possible.
- Students have the opportunity to progress to an honours degree at Staffordshire University. They may also be able to progress to an honours degree at other Higher Education Institutions.
- All students enrol initially enrol on the 240 credit Foundation Degree programme but have an option to leave the programme early with a HNC if they have accumulated sufficient (150) credits

PROGRAMME OUTCOMES

1. Mechanical Technology

Common Learning Outcomes	HNC	Level I (5) Foundation Degree	Level H (6) BSc Honours
Knowledge and understanding	demonstrate knowledge and understanding of well established technological concepts	demonstrate knowledge and critical understanding of well established technological concepts	demonstrate a systematic understanding of key aspects of Mechanical Technology and acquisition of coherent and detailed knowledge some from the forefront of the discipline
Learning	be able to make critical judgments based on knowledge gained in the area of Mechanical Technology	understand the limit of knowledge gained to date	demonstrate an understanding of the uncertainty ambiguity and limits of knowledge
Enquiry	demonstrate knowledge of a variety of forms of enquiry in Mechanical Technology	demonstrate knowledge of main forms of enquiry in Mechanical Technology	use established techniques of analysis and enquiry and carry out a major project on an aspect of Mechanical Technology
Analysis	use established techniques to initiate and undertake analysis of information	use a range of established techniques to initiate and undertake critical analysis of information	describe and comment on current research and advanced scholarship in the field of Mechanical Technology and critically evaluate arguments and abstract concepts
Problem solving	evaluate problem solving approaches and propose solutions to problems	critically evaluate problem solving approaches and propose solutions to problems	develop techniques to achieve a range of solutions to problems and decide which is the most appropriate solution
Application	be able to develop new techniques in a technological environment related to mechanical engineering	apply Mechanical Technology concepts and principles outside of the original concept in which they were studied	apply methods and techniques learned to review and consolidate, extend and apply knowledge and understanding. Use ideas and techniques that are at the forefront of knowledge
Reflection	demonstrate the qualities and transferable skills necessary for employment or further study in Mechanical Technology and demonstrate the importance of personal responsibility	demonstrate the qualities and transferable skills necessary for employment or further study, and the development of existing skills that requires exercise of personal responsibility and decision making	manage own learning, exercise initiative and personal responsibility and demonstrate the learning ability and skills required for employment or further professional training
Communication	communicate using a variety of media.	communicate effectively using a variety of media and to specialist and non specialist audiences	communicate information ideas and problems and solutions to a variety of audiences

2. Electrical and Electronic Technology

Common Learning Outcomes	HNC	Level I (5) Foundation Degree	Level H (6) BSc Honours
Knowledge and understanding	demonstrate knowledge and understanding of well established technological concepts	demonstrate knowledge and critical understanding of well established technological concepts	demonstrate a systematic understanding of key aspects of Electrical and Electronic Technology and acquisition of coherent and detailed knowledge some from the forefront of the discipline
Learning	be able to make critical judgments based on knowledge gained in the area of Electrical and Electronic Technology	understand the limit of knowledge gained to date	demonstrate an understanding of the uncertainty ambiguity and limits of knowledge
Enquiry	demonstrate knowledge of a variety of forms of enquiry in Electrical and Electronic Technology	demonstrate knowledge of main forms of enquiry in Electrical and Electronic Technology	use established techniques of analysis and enquiry and carry out a major project on an aspect of Electrical and Electronic Technology
Analysis	use established techniques to initiate and undertake analysis of information	use a range of established techniques to initiate and undertake critical analysis of information	describe and comment on current research and advanced scholarship in the field of Electrical and Electronic Technology and critically evaluate arguments and abstract concepts
Problem solving	evaluate problem solving approaches and propose solutions to problems	critically evaluate problem solving approaches and propose solutions to problems	develop techniques to achieve a range of solutions to problems and decide which is the most appropriate solution
Application	be able to develop new techniques in a technological environment related to Electrical and Electronic engineering	apply Electrical and Electronic Technology concepts and principles outside of the original concept in which they were studied	apply methods and techniques learned to review and consolidate, extend and apply knowledge and understanding. Use ideas and techniques that are at the forefront of knowledge
Reflection	demonstrate the qualities and transferable skills necessary for employment or further study in Electrical and Electronic Technology and demonstrate the importance of personal responsibility	demonstrate the qualities and transferable skills necessary for employment or further study, and the development of existing skills that requires exercise of personal responsibility and decision making	manage own learning, exercise initiative and personal responsibility and demonstrate the learning ability and skills required for employment or further professional training
Communication	communicate using a variety of media.	communicate effectively using a variety of media and to specialist and non specialist audiences	communicate information ideas and problems and solutions to a variety of audiences

3. Manufacturing Technology

Common Learning Outcomes	HNC	Level I (5) Foundation Degree	Level H (6) BSc Honours
Knowledge and understanding	demonstrate knowledge and understanding of well established technological concepts	demonstrate knowledge and critical understanding of well established technological concepts	demonstrate a systematic understanding of key aspects of Manufacturing Technology and acquisition of coherent and detailed knowledge some from the forefront of the discipline
Learning	be able to make critical judgments based on knowledge gained in the area of Manufacturing Technology	understand the limit of knowledge gained to date	demonstrate an understanding of the uncertainty ambiguity and limits of knowledge
Enquiry	demonstrate knowledge of a variety of forms of enquiry in Manufacturing Technology	demonstrate knowledge of main forms of enquiry in Manufacturing Technology	use established techniques of analysis and enquiry and carry out a major project on an aspect of Manufacturing Technology
Analysis	use established techniques to initiate and undertake analysis of information	use a range of established techniques to initiate and undertake critical analysis of information	describe and comment on current research and advanced scholarship in the field of Manufacturing Technology and critically evaluate arguments and abstract concepts
Problem solving	evaluate problem solving approaches and propose solutions to problems	critically evaluate problem solving approaches and propose solutions to problems	develop techniques to achieve a range of solutions to problems and decide which is the most appropriate solution
Application	be able to develop new techniques in a technological environment related to Manufacturing engineering	apply Manufacturing Technology concepts and principles outside of the original concept in which they were studied	apply methods and techniques learned to review and consolidate, extend and apply knowledge and understanding. Use ideas and techniques that are at the forefront of knowledge
Reflection	demonstrate the qualities and transferable skills necessary for employment or further study in Manufacturing Technology and demonstrate the importance of personal responsibility	demonstrate the qualities and transferable skills necessary for employment or further study, and the development of existing skills that requires exercise of personal responsibility and decision making	manage own learning, exercise initiative and personal responsibility and demonstrate the learning ability and skills required for employment or further professional training
Communication	communicate using a variety of media.	communicate effectively using a variety of media and to specialist and non specialist audiences	communicate information ideas and problems and solutions to a variety of audiences

PROGRAMME STRUCTURE, MODULES AND CREDITS

Delivery pattern for 3 year Foundation Degree scheme

All modules are worth 15 credits unless otherwise indicated

1. Mechanical Technology (*denotes work-based modules)

L E V E L C (4)	Teaching Block 1	CE00724-4 Personal Development 1 *	CE00023-4 Mathematics for Technology	CE00025-4 Technology A	Year 1
	Teaching Block 2	CE00022-4 Design Principles for Technology	CE00026-4 Technology B		
	Teaching Block 3	CE00021-4 Design Project	CE00027-4 Mechanical Principles	CE00435-4 Thermodynamics	Year 2

(To progress to Level 5(I) at least 90 credits must be passed with at least 75 Level 4(C) award specific credits)

L E V E L I (5)	Teaching Block 4	CE00029-5 Material Properties and Selection	CE00068-5 Fluid Technology		Year 2
	Teaching Block 5	CE00725-5 Personal Development 2*	CE00069-5 Product Creation Technology	CE00070-5 Work-Based Project* (15/30 credits)	Year 3
	Teaching Block 6	CE00070-5 Work-Based Project* (15/30 credits)	CE00028-5 Control Technology	CE00072-5 Applied Mechanical Technology	

(To progress to Level 6 at least 210 credits must be passed including all required award specific Level 4 (C) credits and at least 75 award specific Level 5 (I) credits.

2. Electrical and Electronic Technology (*denotes work-based modules)

L E V E L C (4)	Teaching Block 1	CE00724-4 Personal Development 1 *	CE00023-4 Mathematics for Technology	CE00025-4 Technology A	Year 1
	Teaching Block 2	CE00022-4 Design Principles for Technology	CE00026-4 Technology B		
	Teaching Block 3	CE00021-4 Design Project	CE00024-4 Electrical and Electronic Principles	CE00400-4 Electrical Machines	Year 2

(To progress to Level 5(I) at least 90 credits must be passed with at least 75 Level 4(C) award specific credits)

L E V E L I (5)	Teaching Block 4	CE00393-5 Electrical Power 1	CE00458-5 Signal Processing Technology		Year 2
	Teaching Block 5	CE00725-5 Personal Development 2*	Specific option	CE00070-5 Work-Based Project* (15/30 credits)	Year 3
	Teaching Block 6	CE00070-5 Work-Based Project* (15/30 credits)	CE00028-5 Control Technology	CE00071-5 Applied Electronics Technology 1	

(To progress to Level 6 at least 210 credits must be passed including all required award specific Level 4 (C) credits and at least 75 award specific Level 5 (I) credits.

Specific options:

- CE00073-5 Modern Communications Technology
- CE00394-5 Electrical Power 2

3. Manufacturing Technology (*denotes work-based modules)

L E V E L (4)	Teaching Block 1	CE00724-4 Personal Development 1 *	CE00023-4 Mathematics for Technology	CE00025-4 Technology A	Year 1
	Teaching Block 2	CE00022-4 Design Principles for Technology	CE00026-4 Technology B		
	Teaching Block 3	CE00021-4 Design Project	CE00027-4 Mechanical Principles	CE00620-4 Introduction to Manufacturing	Year 2

(To progress to Level 5(I) at least 90 credits must be passed with at least 75 Level 4(C) award specific credits)

L E V E L (5)	Teaching Block 4	CE00029-5 Material Properties and Selection	CE00621-5 Quality Management and Control		Year 2
	Teaching Block 5	CE00725-5 Personal Development 2*	CE00069-5 Product Creation Technology	CE00070-5 Work-Based Project* (15/30 credits)	Year 3
	Teaching Block 6	CE00070-5 Work-Based Project* (15/30 credits)	CE00028-5 Control Technology	CE00622-5 Manufacturing Systems	

(To progress to Level 6 at least 210 credits must be passed including all required award specific Level 4 (C) credits and at least 75 award specific Level 5 (I) credits.

Delivery pattern for 2 year Foundation Degree scheme

All modules are worth 15 credits unless otherwise indicated

1. Mechanical Technology (*denotes work-based modules)

L E V E L (4)	Teaching Block 1	CE00724-4 Personal Development 1 *	CE00023-4 Mathematics Technology	for	CE00025-4 Technology A	Year 1
	Teaching Block 2	CE00435-4 Thermodynamics	CE00026-4 Technology B		CE00027-4 Mechanical Principles	
	Teaching Block 3	CE00021-4 Design Project	CE00022-4 Design Principles for Technology			

(To progress to Level 5(I) at least 90 credits must be passed with at least 75 Level 4 (C) award specific credits)

L E V E L (5)	Teaching Block 4	CE00029-5 Material Properties and Selection	CE00068-5 Fluid Technology		CE00028-5 Control Technology	Year 2
	Teaching Block 5	CE00072-5 Applied Mechanical Technology	CE00069-5 Product Creation Technology		CE00070-5 Work-Based Project* (15/30 credits)	
	Teaching Block 6	CE00070-5 Work-Based Project* (15/30 credits)	CE00725-5 Personal Development 2*			

(To progress to Level 6 at least 210 credits must be passed including all required award specific Level 4 (C) credits and at least 75 award specific Level 5 (I) credits.

2. Electrical and Electronic Technology (*denotes work-based modules)

L E V E L C (4)	Teaching Block 1	CE00724-4 Personal Development 1 *	CE00023-4 Mathematics for Technology	CE00025-4 Technology A	Year 1
	Teaching Block 2	CE00024-4 Electrical and Electronic Principles	CE00026-4 Technology B	CE00400-4 Electrical Machines	
	Teaching Block 3	CE00021-4 Design Project	CE00022-4 Design Principles for Technology		

(To progress to Level 5(I) at least 90 credits must be passed with at least 75 Level 4 (C) award specific credits)

L E V E L I (5)	Teaching Block 4	CE00393-5 Electrical Power 1	CE00458-5 Signal Processing Technology	CE00028-5 Control Technology	Year 2
	Teaching Block 5	CE00071-5 Applied Electronics Technology 1	Specific option	CE00070-5 Work-Based Project* (15/30 credits)	
	Teaching Block 6	CE00070-5 Work-Based Project* (15/30 credits)	CE00725-5 Personal Development 2*		

(To progress to Level 6 at least 210 credits must be passed including all required award specific Level 4 (C) credits and at least 75 award specific Level 5 (I) credits.

Specific options:

- CE00073-5 Modern Communications Technology
- CE00394-5 Electrical Power 2

3. Manufacturing Technology (*denotes work-based modules)

L E V E L (4)	Teaching Block 1	CE00724-4 Personal Development 1 *	CE00023-4 Mathematics for Technology	CE00025-4 Technology A	Year 1
	Teaching Block 2	CE00027-4 Mechanical Principles	CE00026-4 Technology B	CE00620-4 Introduction to Manufacturing	
	Teaching Block 3	CE00021-4 Design Project	CE00022-4 Design Principles for Technology		

(To progress to Level 5(I) at least 90 credits must be passed with at least 75 Level 4 (C) award specific credits)

L E V E L (5)	Teaching Block 4	CE00029-5 Material Properties and Selection	CE00621-5 Quality Management and Control	CE00028-5 Control Technology	Year 2
	Teaching Block 5	CE00622-5 Manufacturing Systems	CE00069-5 Product Creation Technology	CE00070-5 Work-Based Project* (15/30 credits)	
	Teaching Block 6	CE00070-5 Work-Based Project* (15/30 credits)	CE00725-5 Personal Development 2*		

(To progress to Level 6 at least 210 credits must be passed including all required award specific Level 4 (C) credits and at least 75 award specific Level 5 (I) credits.

Delivery pattern for 2 year BSc/BSc(Hons) top-up scheme

All modules are worth 15 credits unless otherwise indicated.

1. Mechanical Technology

L E V E L H (6)	Teaching Block 7	CE00050-6 Power Plants	CE00049-6 Stress Analysis	
	Teaching Block 8	CE00108-6 Energy Management	General Option	
	Teaching Block 9	CE00647-6 The Professional Technologist	CE00395-6 Technology Project 15/45 credits	
	Teaching Block 10	CE00395-6 Technology Project 30/45 credits		

2. Electrical and Electronic Technology

L E V E L H (6)	Teaching Block 7	CE00055-6 Power Electronics	Specific option	
	Teaching Block 8	General Option	Specific option	
	Teaching Block 9	CE00647-6 The Professional Technologist	CE00395-6 Technology Project 15/45 credits	
	Teaching Block 10	CE00395-6 Technology Project 30/45 credits		

Specific options:

Teaching Block 7: CE00602-6 Power Systems Engineering and Analysis 1
CE00104-6 Applied Electronics Technology 2

Teaching Block 8: CE00036-6 Data Communication Systems
CE00603-6 Power Systems Engineering and Analysis 2

3. Manufacturing Technology

L E V E L (6)	Teaching Block 7	CE00623-6 Manufacturing Management	CE00048-6 Systems Engineering	
	Teaching Block 8	CE00286-6 Management, Planning and Control of Production	General option	
	Teaching Block 9	CE00647-6 The Professional Technologist	CE00395-6 Technology Project 15/45 credits	
	Teaching Block 10	CE00395-6 Technology Project 30/45 credits		

General options

The majority of undergraduate awards at the University include an opportunity for students to take modules which are not directly related to the main subject(s) of their award – these are general options. Areas include: Management, Information Technology, Study Skills, Law etc

Some general option modules are available to students on all undergraduate awards (except where their content overlaps with core or specific option modules). These are the modules included within the General Option Directory.

<http://www.staffs.ac.uk/modules/options/index.php>

HOW WILL I BE TAUGHT AND ASSESSED?

Teaching and Learning

The learning, teaching and assessment strategy has been carefully developed for this award. It recognises that HNC/Foundation Degree students are different to “traditional” students and their learning is developed, and needs to be supported, in a different way.

The following strategy will be adopted to ensure that students have a supportive learning and teaching environment.

- Students and their employers must appreciate that the award places significant emphasis on work-based learning and therefore it is important that students and employers takes responsibility for the learning process with support from the student's Mentor and Personal Tutor.
- The students will be provided with a Study Pack for each module, which will clearly state the learning and teaching style to be adopted for that module. This will include traditional learning material, such as hand-outs, but there will be an emphasis on web-based learning material which will be available through the University's web-site. Students will also be provided with coursework assignments with clearly defined assessment criteria.
- To ensure active learning, scheduled workshops and case studies will be used in addition to traditional lectures
- Making best use of the work environment for student learning, will help the student to see that at work the consideration of issues is also ongoing education and training
- View work-based activity as an assessment or learning activity in its own right.

In addition the programme follows the QAA document on engineering benchmark statement ensuring that:

- The methods of teaching, learning and assessment are constructed so that the learning activities and assessment tasks are aligned with the learning outcomes that are intended in the programme
- For students to achieve a satisfactory understanding of engineering the expectation is that they will have significant exposure to hands-on laboratory work and substantial individual project work
- Teaching needs to be placed within the context of social, legal, environmental and economic factors relevant to engineering.
- assessment should form part of the learning process and requires that there is 'sufficient opportunity for students to demonstrate that they have met the threshold in all components'

Assessment

The assessment methods used with the programme are varied, formative and develop students' transferable skills as well as their technical ability. Students' ability to plan, judge, communicate complex issues, solve problems logically, and develop original solutions, in appraising critically the work of others, and in managing their own learning are all significant contributors to determining a students' mark for a module. In addition a student's technical understanding of the context of their work alongside that of others, of the breadth of their subject of study, and of the depth of their specialist area of study, also are key to the assessment process.

Assessment methods applied include:

- Unseen examinations / class tests.
- Laboratory assignments / practical work / log book records / reports.
- Learning Portfolio
- Case Studies
- Presentations and oral examinations
- Problem solving exercises
- Essay assignments
- Design tasks
- Computer-based/Simulation exercises
- Poster displays
- Individual projects and reports and Graduate Show presentations
- Assessment of work-based learning

The range of assessment techniques includes exposure to formal examinations to assess knowledge, understanding, application and closed problem solving.

ADDITIONAL INFORMATION

Entry Requirements

The entry requirements for the award are normally one of the following in a subject area:

- 100 points with 80 points from at least one A level, 20 points may come from Key Skills, AS or other units.
- Completed an Advanced/ Modern Apprenticeship.
- BTEC National Diploma or Certificate qualifications.
- Advanced GNVQ at pass grade.
- Mature students with relevant experience.

The applicants can use their previous experiences to gain admission to the programme; admission to a module; admission at an intermediate stage in the programme (known as Advanced Standing); or to gain exemption from part of the programme through the University Accreditation of Prior (Experiential) Learning [AP(E)L] Scheme. These previous experiences can be certificated learning and/or experiential learning.

The current IELTS score is 6.0 but may be raised in light of new UKBA guidance

Further information on Staffordshire University's admissions policy can be found at :
http://www.staffs.ac.uk/courses_and_study/student_services/admissions/

Disability Statement

Staffordshire University operates a policy of inclusive teaching and learning to ensure that all students have an equal opportunity to fulfil their educational potential. Details about how to apply to have your needs assessed can be found at: http://www.staffs.ac.uk/study_here/disabled_students/index.jsp

AWARD SPECIFIC INFORMATION

Higher National Certificate (HNC)

If students achieve 150 credits, of which at least 30 are at Level I they will be awarded Higher National Certificate (HNC).

Foundation Degree

If students achieve 240 credits (120 credits at level C and 120 credits at level I) they will be awarded a Foundation Degree.

Compensation and Condonation at Levels C, I and H

A maximum of 30 credits may be awarded a compensated pass or condoned at each of Programme Levels C, I and H (except in year 4 of the BSc Degree).

The Design Project module at level C and the work-based project module at level I are not compensatable and a minimum of Grade Point 4 is required in each module.

Progression Conditions

To progress to Level H a candidate must normally have achieved 120 credits at Level C and 120 credits at Level I. In other words successful completion of the Foundation Degree.

AP(E)L Scheme

For the award of Foundation Degree no more than 180 credits may be awarded through the AP(E)L scheme with a maximum of 60 credits at Level I.

Work Placement for Students Not in Relevant Engineering Employment

Due to the nature of the assessment criteria of the Work-Based Project (module CE00070-2, 60 credits) it is essential that all students on the Foundation Degree have a Real Work Environment Placement to enable them to complete the module satisfactorily.

It is recognised, however, that some students may not be currently employed in a relevant engineering position at that time in the course. Acceptable reasons for this are:

- They were employed within the engineering sector on commencement of the Foundation Degree but have since been made redundant
- They were previously employed within the engineering sector prior to commencement of the course but were made redundant, and have decided to improve future career prospects by advancing their education
- They were previously in Full Time Education on a relevant engineering programme and would like to advance to Higher Education, however their personal circumstances would not enable them to enrol on a full time degree programme

A College delivering these awards will look at every student without a relevant employment placement on an individual basis and endeavour to support them into a relevant (unpaid) work placement for the purpose of completing the Work Based Project Module. The college will do this by:

- Treating students who are already enrolled on the Foundation Degree and who lose their employment through redundancy as a priority.
- Meet with the student to assess their engineering skill set and prior work experience.
- Market the benefits of a Work Based Project to prospective work experience employers.
- Work with the student in the first instance to support them in finding their own placement. If the student has shown that they have attempted (unsuccessfully) to find a relevant work experience placement the college will support the student by contacting relevant employers. The Work Based Learning team within the college will use knowledge of the existing customer (employer) database to promote individual students and their relevant skills. The team may also approach new employers, on behalf of the student, that the student has identified may provide an appropriate placement for completing their project brief.
- Provide college references for the student to prospective placement employers.
- Liaise with any employer offering work experience, in order to establish the validity of the placement for the purposes of completing a project.
- Monitor activity during the placement to ensure the health and safety of the student, and to ensure that the placement is for the purposes of the Work Based Project only.

It should be noted that the college cannot guarantee a work placement to any student. Any prospective student who is not currently employed within the engineering sector will need to discuss the possibilities for obtaining a work experience placement with a college mentor prior to enrolling on the Foundation Degree.

Possible award exit points

<i>Certificate in Higher Education (Cert HE)</i>	120 credits at level C or higher.
<i>Higher National Certificate (HNC)</i>	150 credits, of which at least 30 are at Level I.
<i>Foundation Degree</i>	240 credits (120 credits at Level C and 120 credits at Level I)
<i>BSc</i>	300 credits, of which at least 60 are at Level H.
<i>BSc(Hons)</i>	360 credits (120 credits at Level C, 120 credits at Level I and 120 credits at Level H).

Further information about the award can be found in the relevant Student Handbook and on the University Website. This includes information about optional modules, learning outcomes at levels below honours, student support, and academic regulations.

Additional information relating to the programme can be found in

- Module Handbooks.
- Recruitment Centre, literature/brochures.
- SURF Office
- Colleges Websites:

www.stokecoll.ac.uk
www.leek.ac.uk
www.burton-college.ac.uk
www.tamworth.ac.uk
www.shrewsbury.ac.uk
www.riversidecollege.ac.uk
www.west-cheshire.ac.uk
www.nulc.ac.uk
www.barnsley.ac.uk

=====